ARCTIC AND ANTARCTIC METEOROLOGICAL OBSERVERS.

The following expeditions will start for the Polar regions during 1901:

1. The Zeigler-Baldwin, to be led by Mr. Evelyn B. Baldwin, who lately resigned from the Weather Bureau for this purpose, the funds to be contributed by Mr. William Ziegler, of New York.

2. A Russian expedition, commanded by Vice-Admiral Makaroff, in the *Ermark*, a vessel constructed to push its way through ice 14 feet thick.

3. A Canadian expedition, in charge of Captain Bernier, in the *Scottish King*.

4. A German expedition; plans not yet published.

5. A joint expedition by Dr. Nansen and the Duke of Abruzzi.

6. Peary and his companions will finish the exploration of Grinnell Land and return home.

7. Dr. Robert Stein and his companions will complete the exploration of Ellesmere Land.

8. A relief expedition to Franz Josef Land, under the command of Captain Stoekken, and apparently at the joint expense of Nansen and Abruzzi.

9. Baron Toll will send a party from the Kara Sea eastward along the Siberian coast.

Capt. J. E. Bernier, of Quebec, proposes to travel by the route taken by the wreck of the *Jeannette*, with dogs, reindeers, and sledges, over the ice from the Lena or Bennett Island region. The trip may last two and a half years.

In the Southern Hemisphere, the British and German expeditions will start in August, 1901, and divide the Antarctic regions between them; Nordenskiold for Norway and Arctowski for Belgium and the Argentine Republic; all will be in the field during the greater part of 1901–3. The network of observations "will furnish a thorough knowledge of the meteorology of all that part of the Antarctic and form a most important contribution to the study of the general atmospheric circulation."

TYPHOON OF NOVEMBER 10 IN HONGKONG.

Mr. Rounsevelle Wildman, Consul General at Hongkong, under date of November 30, reports as follows:

Between the hours of midnight and 9 a. m. on Saturday, the 10th of November, this colony was visited by the most disastrous typhoon that it has experienced since 1874. It caused the loss of over 200 lives, some 270 junks and fishing boats in the harbor, and the loss of the government's new dredger, costing £40,000 and the foundering of H. M. S. gunboat *Sandpiper*. The American barque *Benjamin Sewall* broke her cable and drifted on to the Chinese gunboat *Fupo*, carrying away her masts, spars, and boats. The damage to the *Sewall* running ashore was about $10,000. The American barque *State of Maine*, Captain Colcord, was fortunate in being able to save 8 Chinese from a sinking junk alongside. The greatest loss was caused by the sudden veering of the wind at 8 o'clock. The damage to the city was not as great as to the shipping in the harbor, although iron lamp posts and telegraph posts were twisted and bent, and all buildings of a temporary character were blown down and those in process of construction badly damaged. The consular buildings sustained the loss of all the blinds on one side of it and of a large portion of the windows on the other side. The trees and foliage about the grounds were badly wrecked, as they were all over the city.

EQUINOCTIAL STORMS.

Mr. J. T. Probert, Voluntary Observer at Paterson, N. J., reminds us that "a great deal of the dislike to the Weather Bureau comes from ignorance of its true objects and is associated with reliance upon folk-lore and astrology." His own rule is to make monthly reports to be printed in the local papers, and also daily report and special extra articles upon subjects that are at the moment likely to attract attention; he also puts his daily weather map in a public place where it is very closely watched and where he can answer the questions that are asked. "Thus I have made the daily weather map to become a public teacher and the daily and monthly reports a public instructor." Mr. Probert has also shown his enthusiasm in this study of the weather by an article on equinoctial storms, published in the March report of the New Jersey section, from which we make the following abstract:

From my own records I glean the following data, covering a period of ten years, which I consider a fair test, and on only one occasion can a truly equinoctial storm be said to have come. This was one of those unusual storms which happen once or twice in a lifetime; it occurred on the 18th and 19th of September, 1894, and gave the very large rainfall of 7.44 inches in forty-eight hours, while the 20th, 21st, and 22d were clear days. As a better test, and to give as wide a range as possible, I have tabulated the storms, both great and small, where any rain has fallen, for the week preceding, the week of, and the week following the supposed storm week, and as a truer test I have taken the March and the September equinoxes, with number of rainy days, and also the amount in total; leaving out the present year, as it is incomplete without the month of September. The first table is for the spring equinox, and the second, the fall equinox.

March.

Year.	11th to 18th.		18th to 24th.		24th to 31st.	
	Storms.	Rainfall.	Storms.	Rainfall.	Storms.	Rainfall.
		Inches.		*Inches.*		*Inches.*
1899	3	2.25	3	0.76	4	1.55
1898	2	0.23	3	1.45	3	2.50
1897	3	0.96	3	1.01	1	0.29
1896	3	2.88	3	2.34	2	1.24
1895	3	0.80	1	0.08	2	0.25
1894	3	0.27	3	0.77	2	0.47
1893	2	1.16	3	0.85	none.	....
1892	2	1.14	2	0.31	1	0.22
1891	3	0.86	3	0.95	3	2.70
1890	2	0.81	3	2.34	4	2.54
Total storms and rainfall.	26	11.36	27	10.87	22	11.76

This table most certainly will not sustain the idea of great storms for the March equinox, and I may say that the prevailing wind in March of every year is from the northwest, which does not bear out equinox idea.

Now, let us see how the month of September will be bear out the idea of storms. In this I have taken the same number of days.

September.

Year.	11th to 18th.		18th to 24th.		24th to 31st.	
	Storms.	Rainfall.	Storms.	Rainfall.	Storms.	Rainfall.
		Inches.		*Inches.*		*Inches.*
1899	2	0.96	3	2.01	2	1.50
1898	2	0.36	1	0.77	1	0.03
1897	2	0.05	1	0.07	2	0.84
1896	3	0.74	1	0.30	1	1.29
1895	2	0.39	.....	.....	2	0.50
1894	3	0.84	2	7.44	.....	.....
1893	3	1.48	3	0.21	1	0.45
1892	1	1.80	1	0.11	1	0.02
1891	.....	.....	.....	.....	.....	.....
1890	7	2.96	.....	.....	1	0.40
Total storms and rainfall.	25	9.54	12	10.91	11	5.03

With these facts in view, let any candid mind review the data as here presented, and see if the belief in equinoctial storms is not a popular delusion. I have taken a wider range in time than to have others as a better test than to place the time limit in a space of three or four days, and therefore better to demonstrate the utter falsity of the general idea, and do what I can to help dispel this popular delusion.

WEATHER BUREAU PUBLICATIONS FOR SCHOOL USE.

The Weather Bureau has issued four editions of a chart entitled Description of Cloud Forms. It comprises 11 half-